#### ECE3161

## **Mini-Project Proposal Template**

#### Team members:

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## **Project title:**

Ultrasonic Reverse Sensor with Audible Distance Detector

# **Project Description and Objectives:**

- Detect Presence of Object when reversing
- If object within range, produce pulsing beep
- The frequency of beep increases as distance decreases

## **Design Approach/Implementation:**

- 1. Get signal from Ultrasonic sensor
- 2. Use Passive Low Pass Filter to filter high frequency noise\
- 3. Use Comparator to determine if detection is in range
- 4. Use Voltage Controlled Osscilator to produce an Oscilating Wave depended on Distance of detection
- 5. Convert to pulsing Square Wave

**Demonstrator name:** Dexter Feng

**Quite Complicated**